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Attorney Docket No. 01-240

**REMARKS**

The applicants appreciate the acknowledgement of the claim for priority under section 119 and notice that the certified copy of the priority document has been received.

Also, the applicants appreciate and acknowledge the initialed copy of the form PTO 1449 that was filed on 18 December 2001.

Claims 13, 15-21 and 23-27 are pending. Claims 1-12, 14 and 22 have been canceled. The applicants respectfully request reconsideration and allowance of this application in view of the above amendments and the following remarks.

The examiner objected to the specification due to the inclusion of run-on words. The allegedly run-on words do include spaces. Nevertheless, the specification has been reviewed in detail to correct any groups of words which appear to be run-on, including the instance pointed out in the office action. Other cosmetic corrections have also been made. The examiner is therefore respectfully requested to withdraw the objection.

Claim 8 was objected to. Claim 8 has been canceled. Withdrawal of the objection is respectfully requested.

In paragraph 18 of the office action, dependent claim 15 was objected to, but indicated as being allowable if rewritten in independent form. Claim 15 has been re-written in independent form to include claims 11 and 12, and it is respectfully submitted that claim 15 as rewritten is allowable. New claims 23-27, depending from allowable claim 15 have been added. Support for the new claims 23-26 is located in original claims 16-18 and 1, respectively. Support for new claim 27 is located in the specification, page 3, lines 10-12. In view of the above, the applicants submit that the claims are patentable.

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Also, claims 19-21 have been amended to depend from allowable claim 15. A claim such as claims 19-21 and 26, which makes reference to a preceding claim to define limitations, is an acceptable claim construction and should not for that reason be rejected as improper or confusing under 35 USC § 112, second paragraph. MPEP § 2175.05(f) ("Claims which read: 'The product produced by the method of claim 1' or 'A method of producing ethanol comprising contacting amylose with the culture of claim 1 under the following conditions ....' are not indefinite under 35 USC 112, second paragraph, merely because of the reference to another claim").

The applicants have rewritten claim 15 in independent form since the office action indicated that claim 15 would be allowable if so re-written. However, the applicants do not concede that other features in the claims are found in the prior art. Moreover, the applicants reserve the right to pursue the original subject matter in a continuation application. Therefore, no estoppel should be presumed, and the applicants' claims are intended to include a scope of protection under the Doctrine of Equivalents.

Claims 1-22 were rejected under 35 USC § 112, first paragraph as failing to comply with the enablement requirement. Wording in independent claims 1, 11 and 19 resulted in the rejection. Claims 1 and 19 are canceled, and claim 11 has been incorporated into claims 13 and 15.

Applicants traverse the procedural validity of this rejection. There are factors that must be considered before a rejection can be made for lack of enablement. The factors include, but are not limited to: (a) the breadth of the claims; (b) the nature of the invention; (c) the state of the prior art; (d) the level of one of ordinary skill; (e) the level of predictability in the art; (f) the amount of direction provided by the inventor; (g) the existence of working examples; and (h) the

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quantity of experimentation needed to make or use the invention based on the content of the disclosure. (See MPEP § 2164.01(a).) It is improper for the Examiner to consider only one of the above factors. (See *Id.*) In the present case, the Examiner has considered none of the above factors.

Furthermore, the "...burden is on the Examiner to establish a reasonable basis to question the enablement provided for the claimed invention." (See MPEP § 2164.04.) The examiner must make specific findings of fact, and provide a reasonable explanation as to why the scope of protection provided by the claim is not adequately enabled by the disclosure. (See *Id.*)

Therefore, because the Examiner has not made any specific findings of fact, and has not considered the above-discussed factors in the enablement rejection, it is respectfully requested that the enablement rejection be withdrawn. If the enablement rejection is not withdrawn, the Examiner must present evidence of lack of enablement so that applicant can properly prepare a response.

Furthermore, "as long as the specification discloses at least one method for making and using the claimed invention that bears a reasonable correlation to the entire scope of the claim, then the enablement requirement of 35 USC 112 is satisfied." MPEP § 2164(b).

The specification describes at least one example predetermined format, and how and why it is used, on page 7, lines 10-22. The specification discussed an example of a SCMA/CD (Carrier Sense Multiple Access with Collision Detection) technique.

The specification describes at least one example of "without translating the frame format", and how and why it is used, for example on page 5, lines 22-25; page 6, lines 2-21; page 7, lines 10-20; page 7, lines 25-page 8, line2; page 8, line 9-page 10, line 23. Page 10, lines 12-19 summarizes the foregoing detailed disclosure: "Thus, the terminal Mc receives an optical pulse

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signal, and modulates a carrier wave using the received optical pulse signal into a transmission signal to be transmitted via radio waves without converting the received optical signal into an electrical signal and without translating the frame format of the received optical pulse signal. That is, the present communication system employs the same frame format for both of the wire communication and radio communication.”

Because the specification describes at least one enabling embodiment, it is therefore respectfully requested that the rejection be withdrawn. Assuming *arguendo* that the Examiner maintains the rejection under 35 USC § 112, first paragraph and provides evidence of lack of enablement, the applicants will then address the merits of the rejection.

Claims 1-22 were rejected under 35 USC § 112, second paragraph, as being indefinite. The wording “predetermined format” and “without translating the predetermined format” are considered to be indefinite because the specification allegedly does not disclose any specifics. Although the basis for the rejection is respectfully questioned in the comments below, the claims have been amended to improve clarity.

The claims are rejected due primarily to an alleged lack of clarity. A rejection under section 112, second paragraph requires that A) claims set forth subject matter applicants regards as the invention; and B) claims particularly point out and distinctly claim the subject matter of the invention. Since A) relies on subjective interpretation, B) necessarily forms the objective basis for a rejection under this paragraph. Item B) requires an inquiry into the definiteness of the claim, e.g. whether the scope of the claim would be clear to a person of ordinary skill in the art. MPEP § 2171.

Applicants submit that since the claims would have been clear to one of ordinary skill in the art as written, an objection would have been a more appropriate means to address clarity

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issues. Since the designation "predetermined format" in the phrase "receives a first baseband signal in a predetermined format from said wire communication network" refers to formats commonly used for baseband signals in wire communication networks, the claim would be clearly understandable to one of ordinary skill as referring to one of such formats. Thus the rejection is improper under 35 U.S.C. § 112 second paragraph.

Without acknowledging the propriety of the rejection, applicants have amended the claims to improve the clarity thereof. Accordingly claim 13 and 15 (which incorporate claim 11) have been amended as to matters of form only to address the Examiner's concerns relating to clarity and not for reasons related to patentability. Thus the scope of claims 13 and 15 has not been narrowed within the meaning defined in *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722 (2002).

In paragraph 13 of the office action, claim 13 was rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 6,754,183, Razavi et al. ("Razavi") in view of U.S. patent No. 5,822,307, Eastmond et al. ("Eastmond"), further in view of U.S. Patent No. 6,353,735, Sorrells et al. ("Sorrells"). In paragraph 15 of the office action, claim 16 was rejected under 35 USC § 103(a) as being unpatentable over Razavi and Eastmond, further in view of U.S. Patent No. 5,159,479, Takagi ("Takagi"). In paragraph 16 of the office action, claims 17-18 were rejected under 35 USC § 103(a) as being unpatentable over Eastmond, in view of Razavi.

Claim 13 has been rewritten in independent form to include claims 11 and 12. Claims 16-18 have been amended to depend directly or indirectly from claim 13. Insofar as the rejections can be applied to the claims as amended, the rejections are respectfully traversed for reasons including the following which are provided by way of example.

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Independent claim 13 recites in combination, for example, "said transmitter means includes a light controlled oscillator for generating the carrier wave of a predetermined nominal frequency, wherein the first baseband signal received by said transmitter means is applied to said light controlled oscillator, and wherein said light controlled oscillator generates, as the transmission signal, a signal of a frequency shifted from the predetermined nominal frequency according to an intensity of the applied first baseband signal." Consequently, the transmitter means includes a light controlled oscillator which varies its oscillation frequency in accordance with input light applied thereto.

To properly reject a claimed invention, the examiner must establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness with respect to a claimed invention, all the claim limitations must be taught or suggested by the prior art reference (or references when combined). *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Moreover, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Furthermore, the teaching or suggestion to make the claimed combination and a reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

The examiner bears the burden of establishing this *prima facie* case. *In re Deuel*, 34 U.S.P.Q.2d 1210, 1214 (Fed. Cir. 1995). If the examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of patent. *In re Oetiker*, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992).

The applicants provide herein a selection of some examples of limitations in the claims which are neither taught nor suggested by Razavi. The final Office Action admits that Razavi in combination with Eastmond "do not however teach wherein the transmitter means includes a

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light controlled oscillator for generating the carrier wave of a predetermined nominal frequency, wherein the first baseband signal received by said transmitter means is applied to said light controlled oscillator, and wherein said light controlled oscillator generates, as the transmission signal, a signal of a frequency shifted from the predetermined nominal frequency according to an intensity of the applied first baseband signal." (Office Action, ¶ 13). Recognizing that Razavi and/or Eastmond fail to teach and/or suggest the invention as claimed, Sorrells is cited to remedy the deficiencies.

Nevertheless, Sorrells fails to remedy such deficiencies. In Sorrells, the VCO 5720 is not light-controlled. (E.g., Col. 63, lines 35-68; col. 65, lines 47-67.) Moreover, the transmission module 5730 is referred to as an electro-optical converter (Col. 66, lines 46-48.). Nothing is taught or suggested about how to convert light input to electric output.

Hence, Razavi and Eastmond and/or Sorrells, alone or in combination, fail to teach or suggest the combination of features recited in independent claim 13, when considered as a whole.

With respect to the rejected dependent claims, applicant respectfully submits that these claims are allowable not only by virtue of their dependency from independent claim 13, but also because of additional features they recite in combination.

Applicants respectfully submit that, as described above, the cited prior art does not show or suggest the combination of features recited in the claims. Applicants do not concede that the cited prior art shows any of the elements recited in the claims. However, applicants have provided specific examples of elements in the claims that are clearly not present in the cited prior art.

Applicants strongly emphasize that one reviewing the prosecution history should not interpret any of the examples applicants have described herein in connection with distinguishing over the prior art as limiting to those specific features in isolation. Rather, for the sake of

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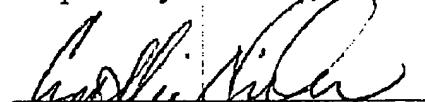
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simplicity, applicants have provided examples of why the claims described above are distinguishable over the cited prior art.

In view of the foregoing, the applicants submit that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is invited to contact the undersigned by telephone.

If there are any problems with the payment of fees, please charge any underpayments and credit any overpayments to Deposit Account No. 50-1147.

Respectfully submitted,



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